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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/443,779	11/19/1999	SU CHIN CHANG	13237-2495	7712
7590	04/16/2004		EXAMINER	
JOSEPH R. KELLY CHAMPLIN & KELLY, PA 900 SECOND AVENUE SOUTH INTERNATIOANL CENTRE, SUITE 1600 MINNEAPOLIS, MN 55402-3319			EDOUARD, PATRICK NESTOR	
			ART UNIT	PAPER NUMBER
			2654	
DATE MAILED: 04/16/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

	Application No. <b>09/443,779</b>	Applicant(s) <b>CHANG</b>
	Examiner <b>Patrick N. Edouard</b>	Art Unit <b>2654</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on Sep 25, 2003.

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 1-17 and 20-33 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-17 and 20-33 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1)  Notice of References Cited (PTO-892)

4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

5)  Notice of Informal Patent Application (PTO-152)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

6)  Other: \_\_\_\_\_

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## **DETAILED ACTION**

1. This Office Action is in response to communication filed 9/25/03 (paper #6). Claims 1-17, 20-31 and new claims 32-33 are pending.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-17 and 20-33 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17 and 20-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loatman et al (4,914,590) in view of Hicken et al (6,473,896).

As per claims 1, 7, 8, Loatman et al teach a method for analyzing and debugging natural language parses, comprising (figures 8A-16B):

“Displaying a parse tree for a textual input, the parse tree being generated based on rules and comprising at least one connecting point having two children”( figure 8a, col. 36,

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lines 21-55, the complex sentence “Reagan warned... the strait” is parsed and the parse tree shown in figure 8a);

“Receiving control input selecting one of said connecting points as a selected connecting point”(col. 36, line 56 to col. 37, line 25, a graphic debugging tool that is displayed allows the user to interact with the output of the parse and to select a node (connecting point) of the parse tree); col. 17, line 1 to col. 22, line 56, his system browser);

“Determining whether a constituent was formed at said connecting point”( col. 37, lines 7-25, the leaf nodes represent the individual words of input which have been morphologically analyzed ); and

“displaying a plurality of display items proximate to said selected connecting point”(col. 37, lines 14-25, the user has bugged the node which hold the parse of the clause and a menu of that clause is displayed).

It is noted that Loatman et al teach the claimed invention but does not explicitly teach the display items including alternate rules , other than the rules used in generating a constituent connecting point. However, this feature is well known in the art as evidenced by Hicken et al who teach in figures 8A, 8B, 9-12 at col. 11, line 10 to col. 12, lines 11, pointing the cursor to the node placed in graphic pane 64 and invoking a GUI function provides a pull down menu with all available attributes, rules, types or values specific to the node. Therefore, one having ordinary skill in the art at the time the invention was made would have found it obvious to incorporate into the nodes of the parse tree of Loatman a pull down menu with all available rules

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as taught by Hicken et al because it would provide a system for graphically generating defined rules to be used for checking the quality and relationship of information in language.

As per claim 2, Loatman et al teach “receiving control input one of said plurality of menu...” ( figures 10a-10b, the user interact with three window,;col. 37, lines 30-54, col. 17, line 1 to col. 22, line 56, his system browser in particular section 2-4.1.3, col. 21, line 37-48 that recites pressing the right button, bring s a menu of graph editing options where a link / node can be deleted);

“In response to receiving said control input for deleting said constituent , deleting said constituent”( col. 21, lines 35-47, a node is deleted accordingly; see also Hicken’s figures 8a-12).

As per claim 3, Loatman et al teach receiving control input for selecting one of said plurality..for deleting said parse tree”; (col. 22, lines 48-57, the DeleteLink Fn prompts for the From and To nodes from which to delete the link and the graph (parse tree); see also Hicken figures 8a-12);

“In response...deleting constituent formed at each connecting point in said parse tree” ( col. 22, lines 48-59).

As per claim 4, Loatman et al teach “receiving control input selecting ..displaying information regarding said children of said selected connecting point” (figures 43A through 43D, col. 31, line 64 to col. 32, line 50, particularly col. 32, line 18-24);

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“Displaying information regarding said children of said selected connecting point”(figures 43A through 43D, col. 31, line 64 to col. 32, line 50, particularly col. 32, line 18-24, his system browser can display all the parse showing the links (nodes) of parent and children );

As per claim 5, Loatman et al teach displaying a first plurality of menu...identifying a grammar rule applied at said selected point to form constituent” (col. 38, line 35 to col. 40, line 2 his grammar development example ).

As per claim 6, Loatman et al further teach wherein said control input selecting one of said connecting points as a selected connecting point comprises:

“Receiving input from an input placing a pointer of a user interface proximate to one of said connecting point” (col. 17, lines 1-50, the user selects any displayed node to be operated on with a browser windows that acts as menus ); and

“receiving input representing an enabled state for the control of the input device”( col. 17 , lines 1-40);

As per claim 9 , Loatman et al teach determining whether a constituent was formed at said selected connecting point comprises determining whether a rule was successfully applied at said selected connecting ...” (Col. 37, line 65 to col. 38, , line 20).

Claim 10 recites the limitations of claim 1 (see rejection of claim 1 above), and further recites the menu items including an alternate grammar rule display items which when activated , displays alternate grammar rules comprising grammar rules not successfully applied in generating the parse tree (Hicken’s figures 13-14, col. 12, lines 12 -64).

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As per claim 11, Loatman et al teach receiving control selecting one of said plurality of menu items ( col. 17, line 1 to col. 22, line 57, his system browser wherein when a node is selected , menus are displayed relate to examining and modifying things, provide database search and edit the window's graph);

“ in response to receiving user input...displaying a second plurality of menus item proximate to said plurality of menu items “ ( col. 17, lines 52-61, a menu of the object slot is displayed , then when a slot is selected a menu of its facets will pop up).

As per claims 12-16, Hicken et al teach receiving control input selecting, activating the alternate grammar rules display item... connecting point; ( figure 8a-12. Col. 11, lines 10 to col. 12, line 12); and

“ displaying a first group of rules comprising all of the rules that may be applied at said selected connecting point of said constituents of said connecting point” ( figure 8a-12, col. 11, line 10 to col. 12, line 12).

As per claims 17, 20-23 and 32-33, Hicken et al teach receiving control input activating the alternate grammar rules display items for displaying a group of alternate rules applied at said selected connecting point that did not successfully form a constituent at said selected connecting point and displaying of alternate rules (figures 15 a -15 g and 16 a-16 c, col. 12, lines 12-57).

5. Claims 24-31 are the same in scope and content as claims 1-23 above and therefore are rejected under the same rationale.

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6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231 or faxed to:

(703) 308-9051, (for formal communications intended for entry) Or:

(703) 305-9508 (for informal or draft communications, please label "PROPOSED" or

"DRAFT")

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Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal Drive, Arlington.

VA., Sixth Floor (Receptionist).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick N. Edouard whose telephone number is (703) 308-6725. The examiner can normally be reached on Tuesday-Friday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dorvil Richemond can be reached on (703) 305-9645.

The facsimile phone number for this Art Unit is (703) 305-9508. Alternatively, facsimile messages may be sent directly to (703) 305-9644 where they will be stored in the examiner's voice mailbox (telling the examiner that a fax was received) and be automatically printed (i.e. - no delay by the examiner).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Patrick N. Edouard

December 12, 2003



PATRICK N. EDOUARD  
PATENT EXAMINER